EDITORS' INTRODUCTION

Trans-Atlantic Debate: Whether Venous Perforator Surgery Reduces Recurrences

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Superficial venous surgery and perforator vein surgery (specifically), have a long and varied history in the evolution of vascular surgery, especially as venous disease continues to be extremely common. As with other areas of our specialty, perforator vein procedures have progressed from being purely open operations to becoming less invasive procedures. Despite this, there remains much discussion (as well as overt disagreement) about whether perforator vein surgery is actually appropriate and beneficial in the first place. Surgeons have no level 1 evidence from randomized controlled studies to determine whether perforator vein surgery does or does not reduce the chance of recurrence of superficial venous varicosities, so we must rely on the evidence as it currently is. Perhaps not surprisingly, our two experts have assembled divergent opinions on the role of perforator venous surgery in contemporary practice.

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Part One: For the Motion. Venous Perforator Surgery is Proven and Does Reduce Recurrences

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There are few areas of superficial venous surgery in which opinions are as polarised as that regarding the role of perforator veins and incompetent perforator veins (IPV) in the treatment of varicose veins. On one hand, perforating veins are regarded as "normal", allowing blood refluxing in incompetent superficial venous trunks to "re-enter" the system, and thus they should be left alone,[1] regardless of their size or apparent reflux on certain tests. On the other hand, IPV are seen as different from competent perforating veins in allowing significant venous outflow from the deep system into the superficial venous system causing morphic changes to the local superficial veins (varicosities or telangiectasia) or tissue (oedema or fascia cutaneous changes).[2]

The large number of publications on the subject does not currently provide a definitive answer—hence this debate! However, as practising clinicians, the management of patients presenting with varicose veins or other sequelae of superficial venous reflux disease cannot be postponed until the case has been proven beyond doubt.

As such, practising clinicians need to approach this subject in a pragmatic fashion. Patients need to be treated in accordance with observations and experience, and be guided by what evidence is currently available. The absence of a definitive randomised controlled trial does not mean that the science is unproven—merely that the level of evidence is lower than some might like. In hospitals, there are a great many procedures performed daily that have the same or even lower levels of evidence to support them. Merely listing the current publications and available research into IPV and varicose veins is not sufficient to answer this question satisfactorily, as patients may end up being denied the excellent results that have been reported when perforator veins are treated in conjunction with the treatment of truncal venous reflux.[3]

Before launching into the debate proper, the difficulty in producing a standard definition of what is a significant IPV must be acknowledged.

DIAGNOSIS OF AN IPV

Although most clinicians would accept that a perforating vein is a venous communication between superficial and deep veins in the leg, "perforating" through the deep investing fascia and hence the underlying muscle, the question as to what constitutes incompetence and what level of reflux in IPV is significant, is not exact.

For those who believe that bidirectional flow in perforators is abnormal, many use the diameter of the perforator as a marker of incompetence. However, although >3.9 mm